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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/828,460	04/06/2001	William R. Mass	279.308US1	6907

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EXAMINER

KHAN, OMAR A

ART UNIT

PAPER NUMBER

3762

DATE MAILED: 08/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

S.M.

Office Action Summary

Application No.

09/828,460

Applicant(s)

MASS ET AL.

Examiner

Omar A Khan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is vague and indefinite for citing the limitation “a carrier signal” in line 7 since it is unclear whether this is the same as or different from the radio frequency carrier signal cited previous in the claim. The limitation “a digital data signal” is inferentially included and not positively recited in the claims. Further, the claim is incomplete for omitting an element to produce a digital data signal. The phrases “an external device”, “an implantable device”, “an antenna”, and “a carrier” are vague and indefinite as it is unclear whether these refer to the same as or different from the respective elements cited in the preamble. Examiner suggests –the external device-, -the implantable device-, -the antenna-, and –the carrier-.

Claim 3 is vague and indefinite for citing the limitation “an external device” as it is not explicitly clear whether this refers to the same or different element as in the parent claim.

Examiner suggests –the external device-.

Claim 4 is vague and indefinite for citing the limitation “specified symbol period” as it is unclear whether the specified symbol period is predetermined or not and if the latter, then the claim is incomplete for omitting an element to decide or determine the specified symbol period.

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Claim 6 recites the limitation “the voltage-controlled capacitance”. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 cites the limitation “a locally generated reference carrier signal” which is inferentially included and not positively recited in the claims. Further, the claim is incomplete for omitting an element to produce a locally generated reference carrier signal.

Claim 11 cites the limitation “alignment symbols” which are inferentially included and not positively recited in the claims.

Claims 14 and 15 are incomplete for omitting an element to perform the differential binary phase-shift keying and the differential quadrature phase-shift keying.

Claim 16 is vague and indefinite for citing the limitation “a carrier signal” since it is not explicitly clear whether this is the same as or different from the radio frequency carrier signal cited earlier in the claim.

Claim 17 provides for the use of the radio frequency carrier and antenna, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7, 9, 10, and 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Weijand et al (US Patent No 5,999,857). The dimensions of the antenna and the frequency of the radio frequency carrier signal suggested by Weijand are capable of meeting the functional use limitations presented in the claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weijand et al (US Patent No 5,999,857). Weijand discloses all of the claimed limitations but does not explicitly speak to modulation with QPSK. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the passive, reflected impedance transmitter and receiver apparatus of Weijand to include modulation of the RF carrier signal with QPSK since it was well known in the art that QPSK systems require only low power and are capable of

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operating at a relatively higher data rate while retaining a high degree of accuracy due to the splitting of the signal into in-phase and quadrature phase components.

4. Claims 11 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weijand discloses all of the claimed limitations but does not explicitly speak to a clock signal embedded in the RF carrier signal. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the passive, reflected impedance transmitter and receiver apparatus of Weijand to include a clock signal embedded in the RF carrier signal since it was well known in the art to periodically modulate an RF carrier signal with a clock signal (or alignment symbols) for providing the receiver with a synchronized reference carrier signal to demodulate the incoming modulated signal.

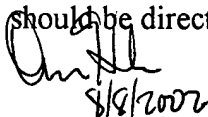
5. Claims 12-15, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weijand et al (US Patent No 5,999,857). Weijand discloses all of the claimed limitations but does not explicitly speak to a differential PSK or QPSK modulation scheme. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the passive, reflected impedance transmitter and receiver apparatus of Weijand to include modulation of the RF carrier signal with differential PSK or QPSK since it was well known in the art that differential PSK or QPSK allows a coherent detection strategy that does not require a complicated carrier phase recovery subsystem and thus, one ordinary skill would use differential PSK or QPSK to have a simpler receiver system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Omar A Khan whose telephone number is (703) 308-0959. The examiner can normally be reached on M-F 9AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (703) 308-5181. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3590 for regular communications and (703) 305-3590 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0873.


Omar A Khan
August 8, 2002


GEORGE R. EVANISKO
PRIMARY EXAMINER
8/8/2